



# Hurricane Thompson Briefing # 5

5 PM - Sunday September 4, 2022

What has changed:

- 1) Arrival of Impacts are faster across the entire region.
- 2) Life threatening Storm Surge Inundation risk now with the early Mon AM high tide.
- 3) Threat for severe/catastrophic river and flash flooding has increased.



# Situation Overview

## Hurricane Thompson

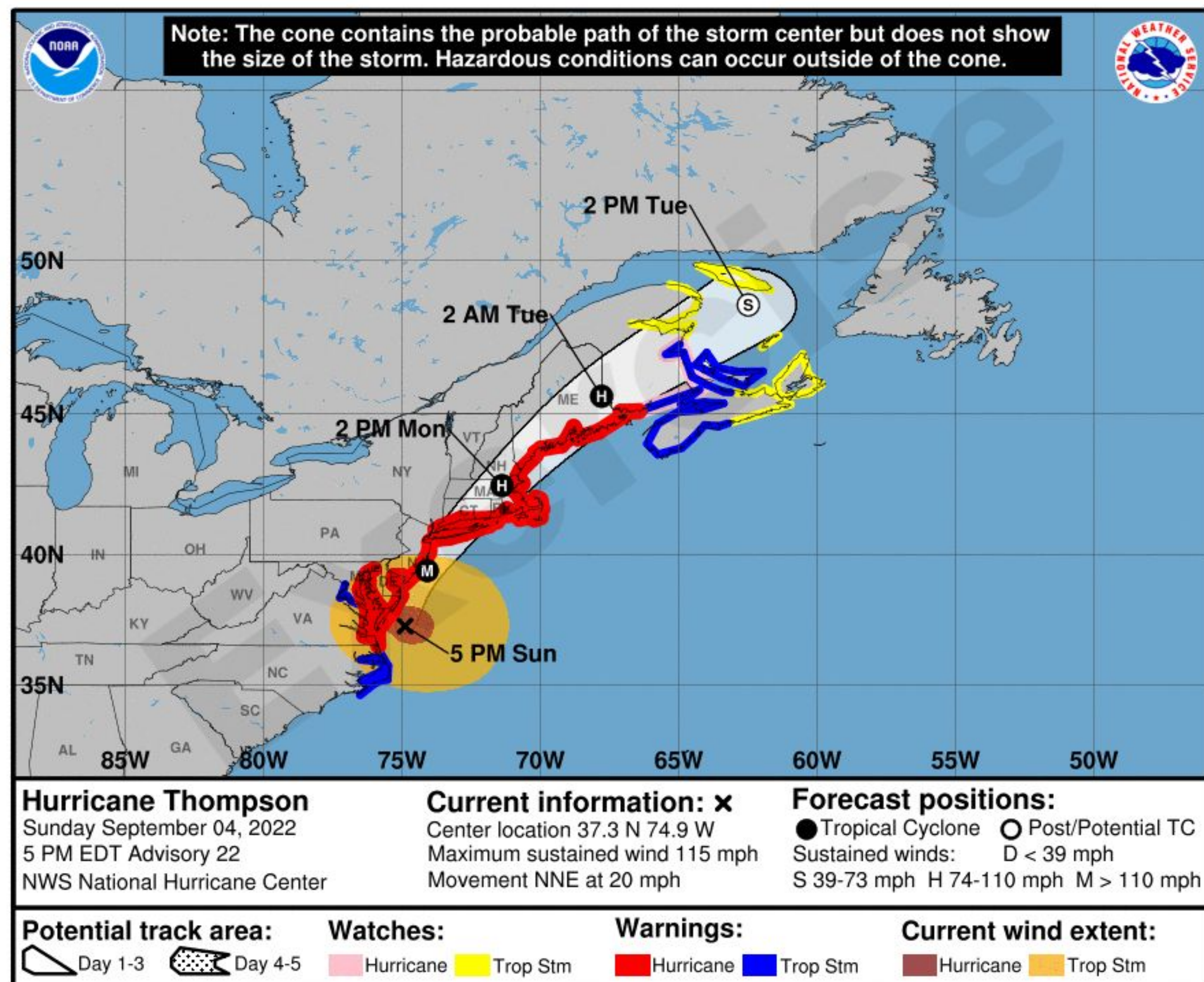
- Hurricane Thompson to make landfall as a major hurricane (CAT 3) in central Long Island Monday AM and then onto the CT/RI coastline.
- Life threatening Storm Surge Inundation likely along the CT coast and south coasts of RI/MA now during the early Monday am high tide.
- Widespread destructive winds & prolonged power outages along with dangerous to potentially catastrophic river & flash flooding expected.
- **Damage/Destruction will be something that has not been experienced by this generation! This will be the first Cat 3 Hurricane to make landfall in SNE since Carol in 1954!**





# Situation Overview

## Hurricane Thompson



- Onset of impacts from Hurricane Thompson has sped up since the last briefing. Hurricane Conditions will now arrive Monday morning!
- Hurricane Warnings and Storm Surge Warnings remain in effect for the entire coastline.
- Destructive wind gusts over 100 mph. Strongest of those winds expected across southeast CT and onto the south coasts of RI and MA!






**NOTE:** Do not focus on the exact track.  
Impacts can occur well outside the area enclosed by the cone.





# Situation Overview

Hurricane Thompson

Hazard	Impacts	Location	Timing
 Wind	Widespread Destructive life-threatening Winds/Wind Damage. Prolonged power outages of at least several weeks.	All of SNE especially eastern CT, RI as as well as central and eastern MA	Early Monday morning into Monday evening.
 Storm Surge/ Inundation	Life threatening Storm Surge/Inundation.	South coasts of CT, RI and MA	Early Monday morning high tide.
 Flooding Rain	Excessive rainfall will lead to dangerous to potentially catastrophic river and flash flooding.	All of Southern New England especially across CT and western MA.	Through Monday night.
 Tornado	Potential damage from Tornadoes.	Anywhere across CT, RI and MA.	Monday into Monday evening.
 Marine	Life Threatening Conditions Expected.	All Coastal Waters.	Through Monday night.

\*\*\*\* **EXERCISE EXERCISE EXERCISE** \*\*\*\*

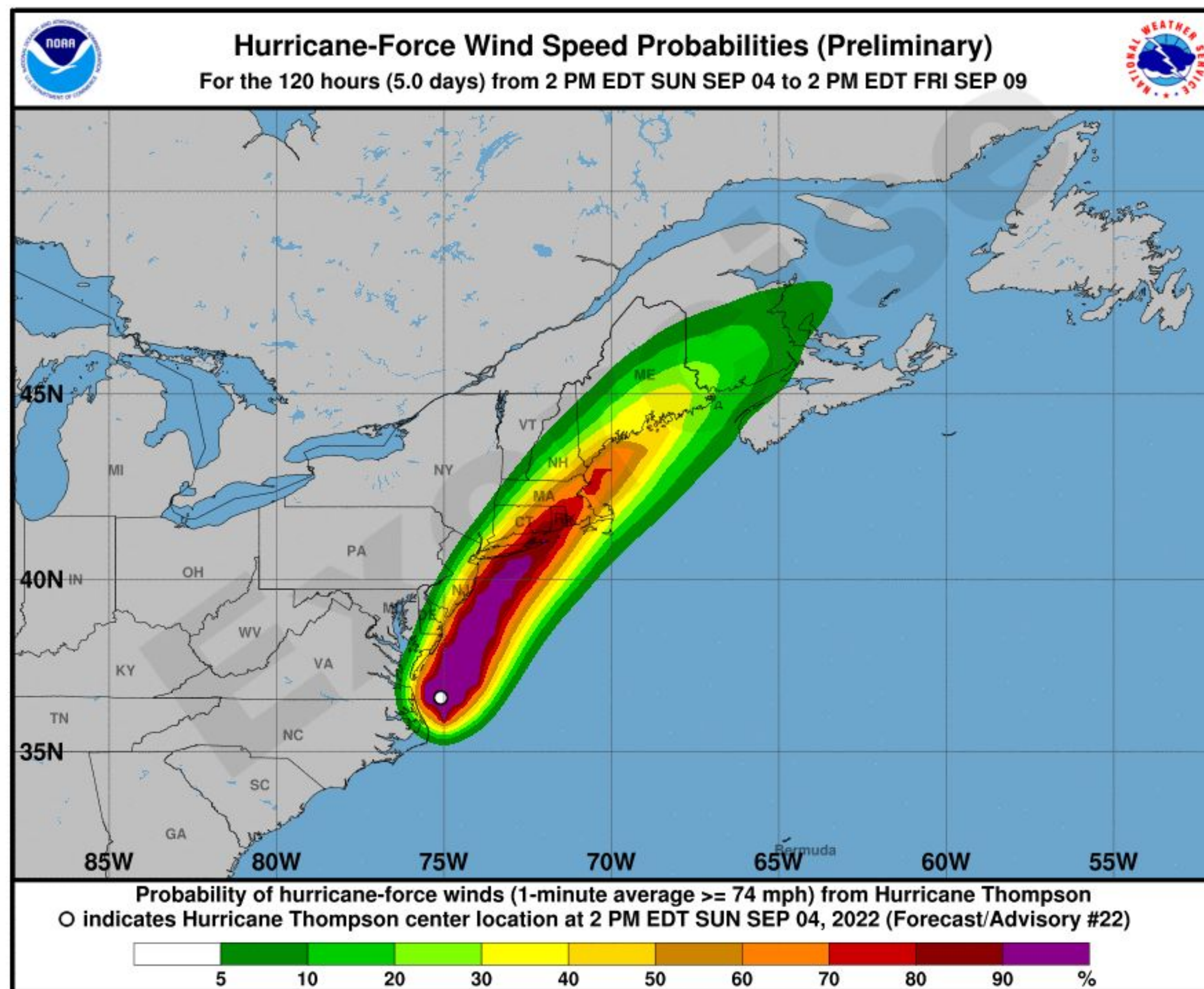
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# Hurricane Wind Speed Probabilities

Hurricane Thompson



- Hurricane wind probabilities have increased across CT, RI and southeast MA.
- Onset of Hurricane force wind gusts have sped up and will overspread the region Monday morning.
- Destructive wind gusts over 100 mph. Strongest of those winds will be across southeast CT and south coasts of MA & RI!

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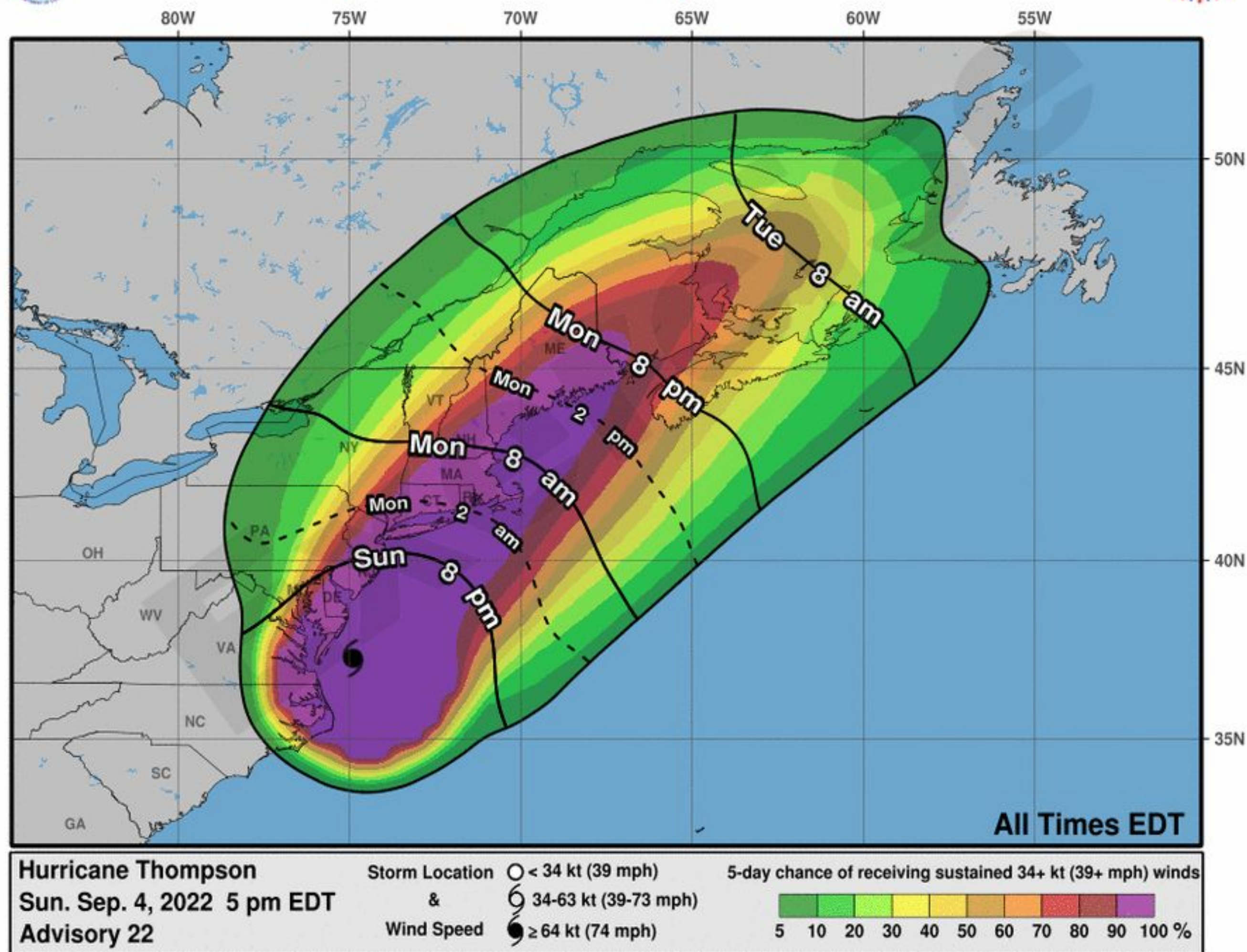


# Most Likely Time of Arrival

Hurricane Thompson



## Most Likely Arrival Time of Tropical-Storm-Force Winds



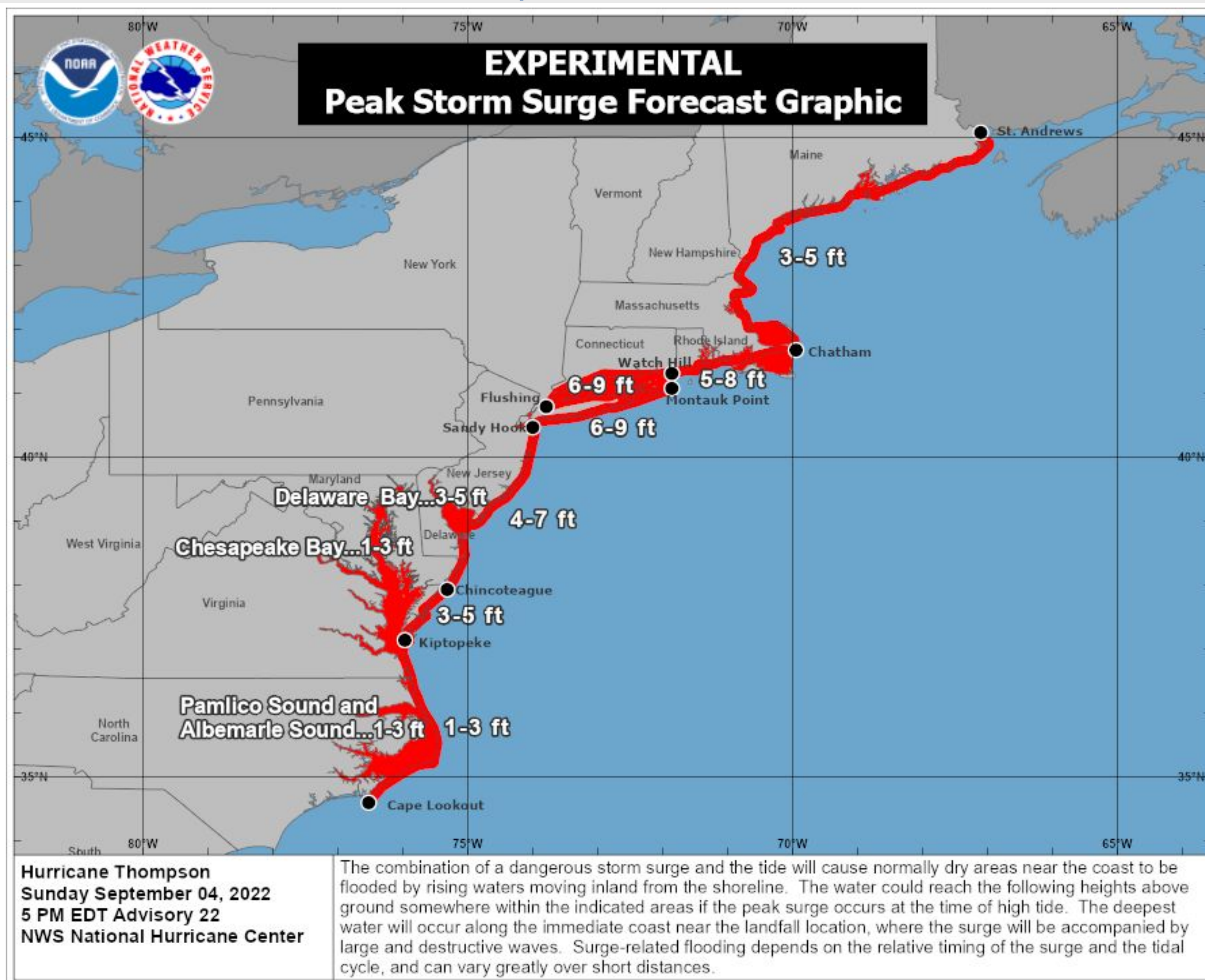
- The most likely time of arrival of Tropical Storm Force Winds will be between 2 and 7 am Monday morning.
- However, this area could see Tropical Storm Force Winds as early as midnight!





# Potential Inundation Above Ground Level

Hurricane Thompson



**Note:** This graphic shows the inundation that could occur in any one location if peak storm surge occurs with high tide. It depicts a reasonable worst case scenario.

## Potential Storm Surge Inundation:

- 5-9 ft of inundation along portions of the south coast if max surge coincides with high tide.
- Life threatening storm surge potential!
- Homes and businesses might be damaged or completely destroyed!

High Tide of concern is now the early Monday morning.

- CT coast: 430 am E to 630 am W
- RI/MA south coast: 3 to 4 am
- MA E coast: 6 to 7 am

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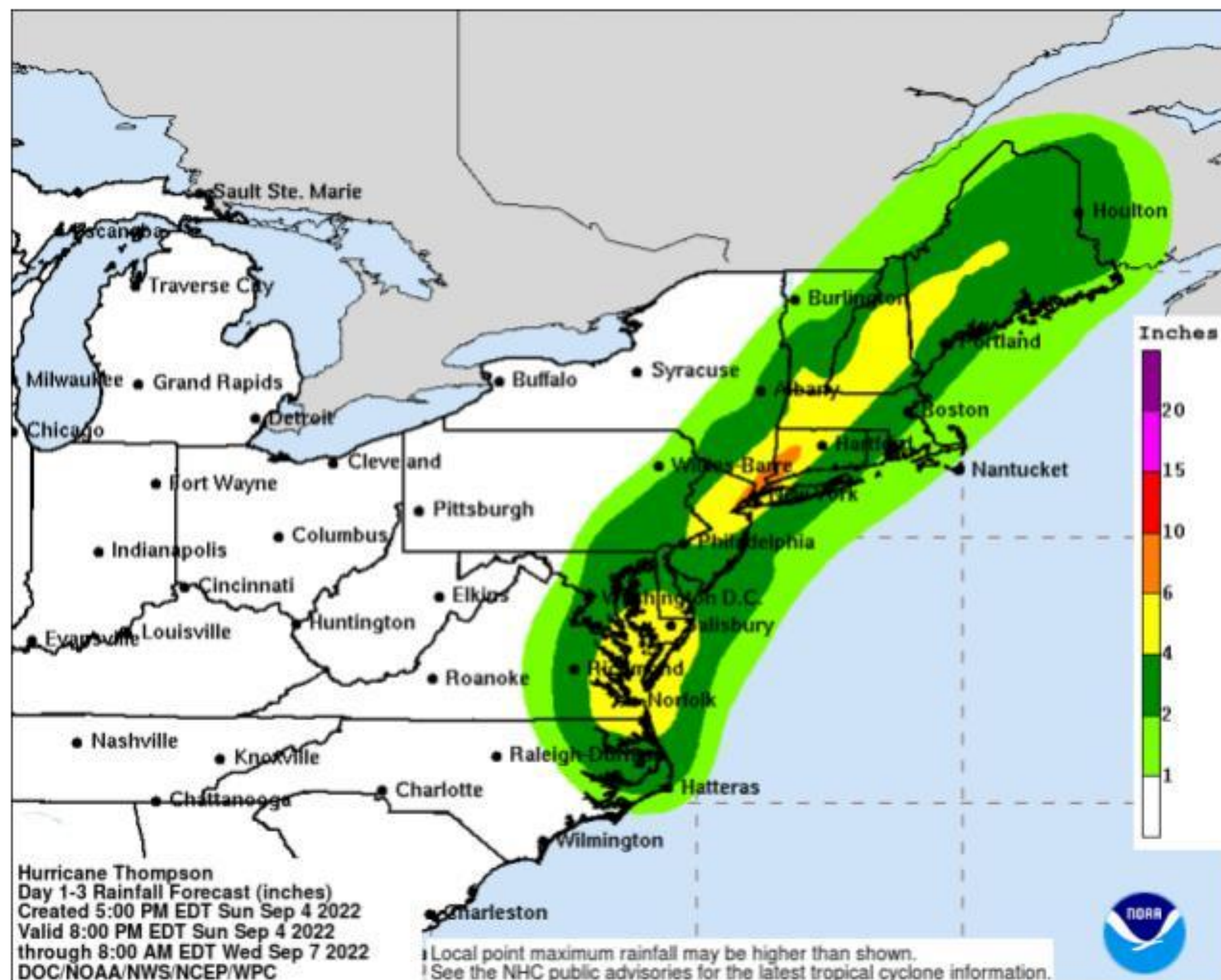


# Expected Storm Total Rainfall

Hurricane Thompson

***Note: There will likely be locally higher amounts***

- Widespread 4 to 6 inches of additional rainfall across western MA and CT with up to 10 inches possible across portions of southwest CT tonight into Monday night.
- Rare high end, life threatening flooding possible focused across interior MA & CT. Destruction of roads, record river flooding and numerous rescues and evacuations might be needed!



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# Flood Hazard Outlook

Hurricane Thompson



## Hurricane Thompson 7-Day Flood Hazard Outlook (Prototype)

Includes Flash, River and Tidal Flood Hazards

NWC National Water Center

Issued: 2022-09-04 4:00PM CDT (21:00 UTC) | Valid Through: 2022-09-11 4:00PM CDT (21:00 UTC) | Next Issuance: 2022-09-05 6:30AM CDT (11:30 UTC)

### Flood Hazard Messages

- Life-threatening inundation from storm surge is occurring along the North Carolina and Mid-Atlantic coast. Storm surge will continue to rise along the Northeast coast before expected landfall on Monday. For more information visit [hurricanes.gov](https://hurricanes.gov).

#### Eastern North Carolina and the Mid-Atlantic

- Catastrophic and dangerous flash, urban and small stream flooding impacts, and widespread moderate to major river flooding are ongoing across the eastern North Carolina coast and southeast Virginia.

- Elsewhere, widespread considerable and life-threatening flash, urban and small stream flooding impacts are occurring and expected to continue through the beginning of the week.

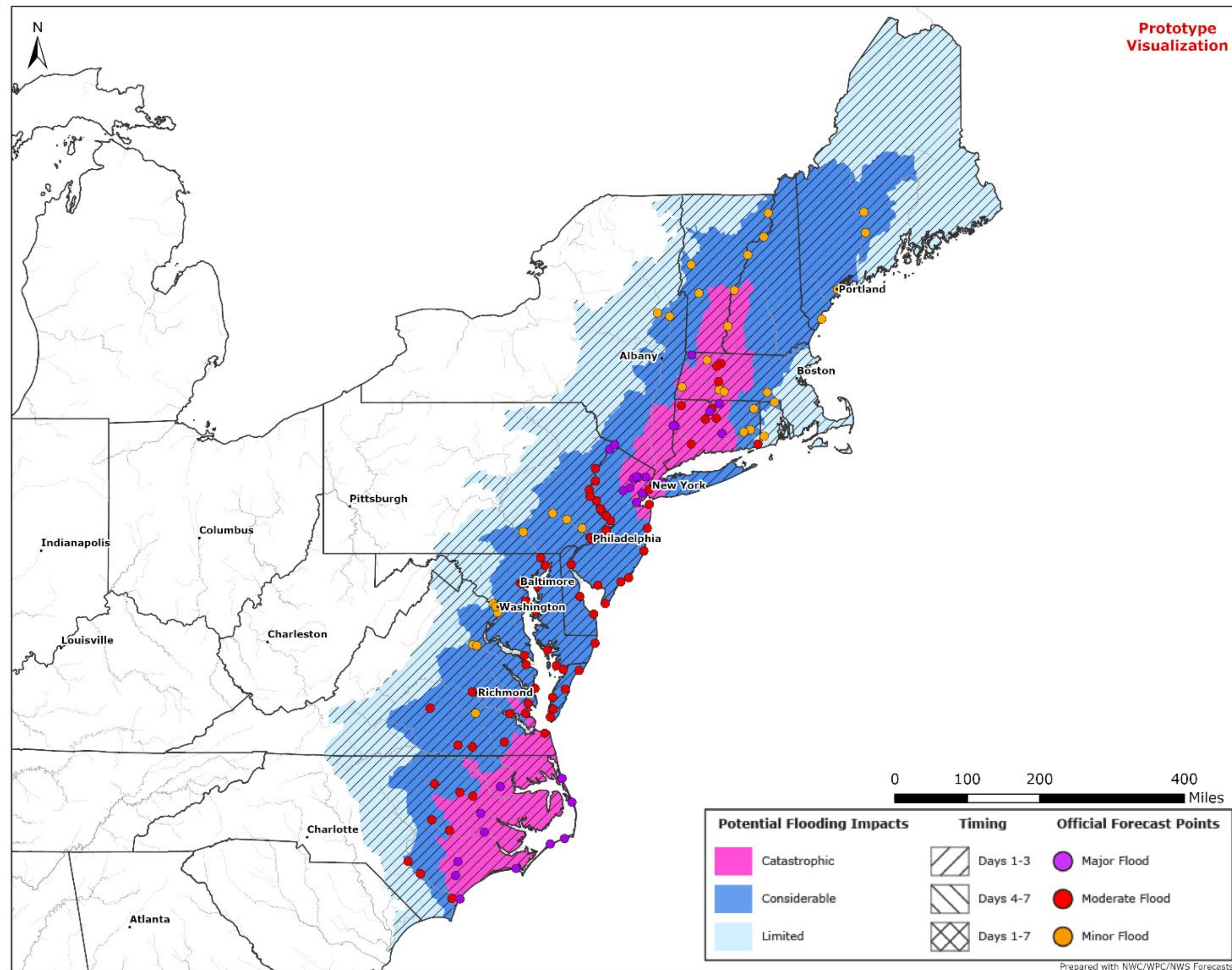
- Widespread, significant river flooding will persist through the week.

#### Northeast

- As Thompson continues up the east coast today, catastrophic and dangerous flash, urban and small stream flooding impacts are expected

Widespread rises moderate to major flooding will persist from the New York City Metro Area into the Connecticut River Valley, with crests and recessions not forecast until later in the week.

**Disclaimer:** This outlook provides an overview of potential flooding impacts. Please refer to detailed products issued by local National Weather Services offices for official forecasts and warnings. ([www.weather.gov](https://www.weather.gov))



**Rare high end, life threatening flooding possible focused across interior MA & CT!**

**Destruction of roads, record river flooding and numerous rescues and evacuations might be needed!**

About this product: [https://nws.weather.gov/products/PDD/PDD\\_PrototypeFloodHazardOutlookProduct\\_2021.pdf](https://nws.weather.gov/products/PDD/PDD_PrototypeFloodHazardOutlookProduct_2021.pdf) | To provide feedback: [https://nws.weather.gov/products/PDD/PDD\\_PrototypeFloodHazardOutlookProduct\\_2021.pdf](https://nws.weather.gov/products/PDD/PDD_PrototypeFloodHazardOutlookProduct_2021.pdf)

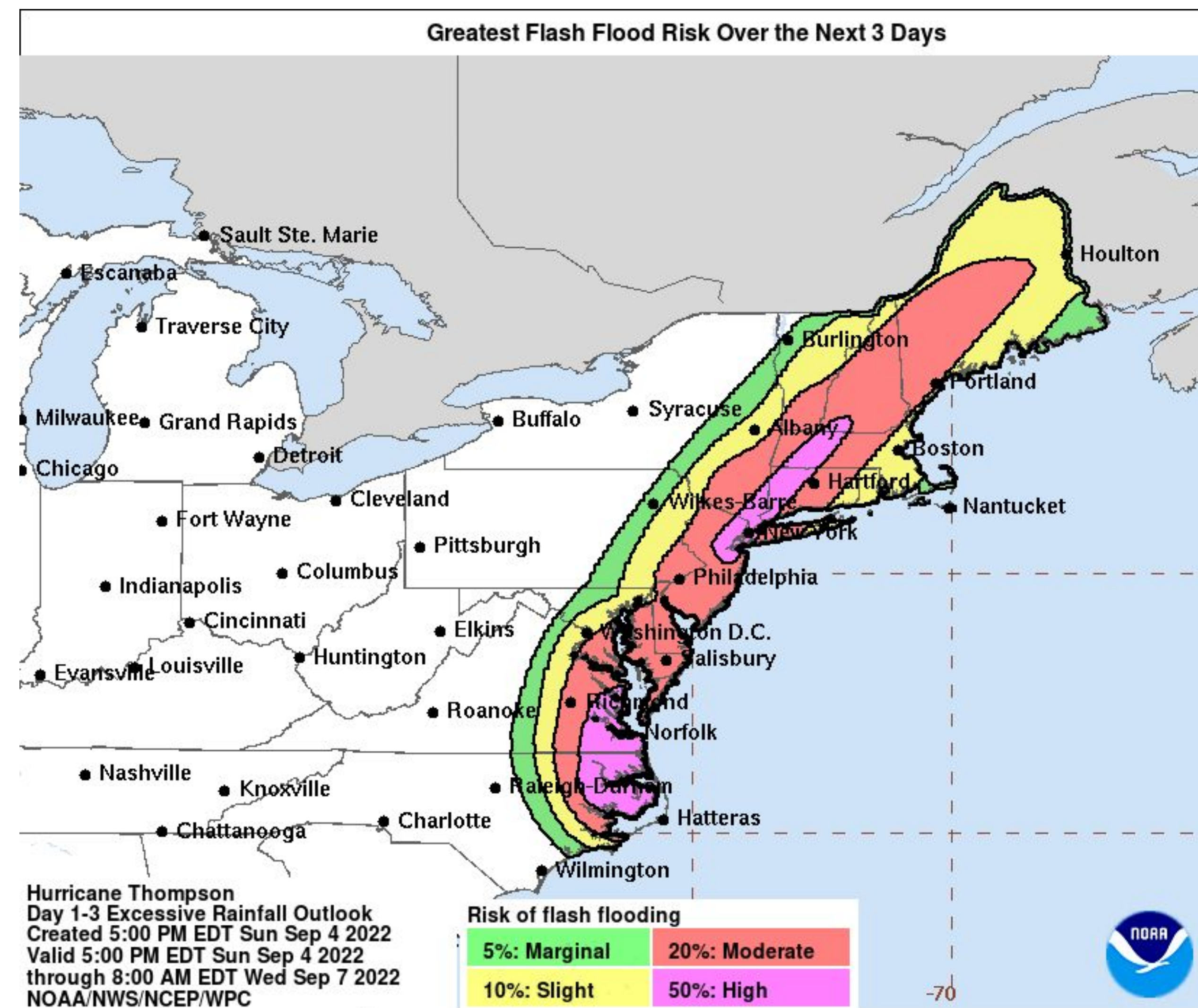
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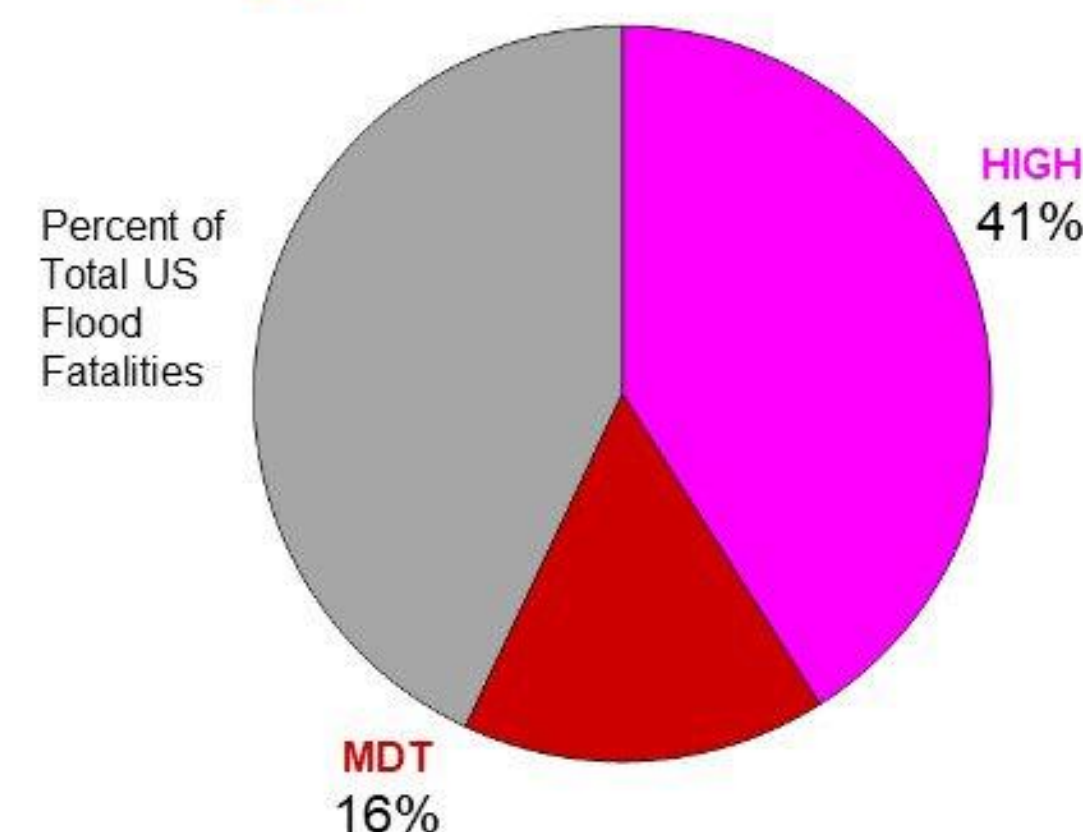
# High Risks Days For Flash Flooding Are a BIG DEAL



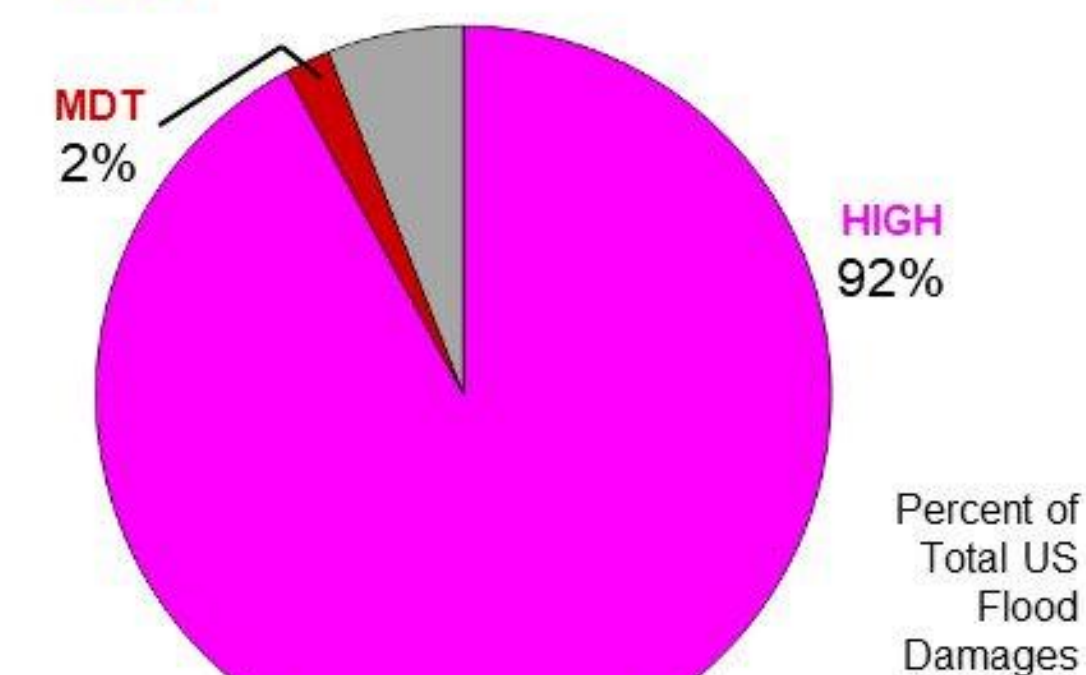
## WPC High Risks are a BIG DEAL

High Risks are only issued by WPC on ~4% of days, but "High Risk Days" have accounted<sup>1</sup> for:

**2/5** of ALL Flood-related Fatalities



**9/10** of ALL Flood-related Damages



<sup>1</sup> From 2014 to 2017. Includes flood, flash flood, heavy rain, and debris flow Storm Data. Excludes Oso, WA landslide which occurred well after rainfall and on a sunny day.



WEATHER PREDICTION CENTER  
NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION



**High Risk Only Issued 4 Percent of Days.**

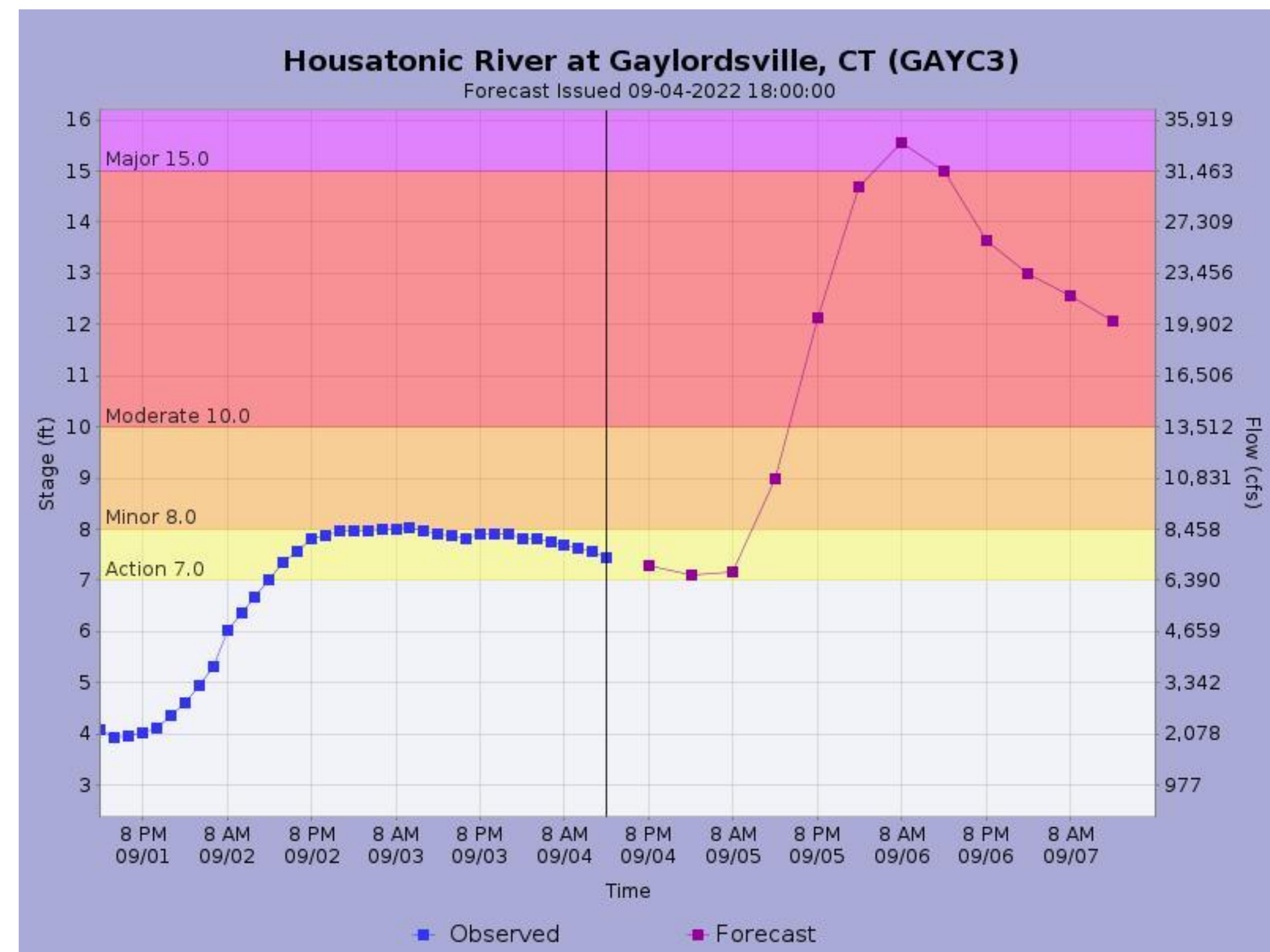
**Rare High Risk Days Account for over 40 Percent of all Flood Related Fatalities.**

**Those High Risk Days Account for 92% of all flood related damages.**





# Hurricane Thompson



- **Hoosic River at Williamstown, MA expected to crest in major flood on Monday.**
- **Housatonic River at Gaylordsville, CT expected to crest in major flood on Tuesday morning.**

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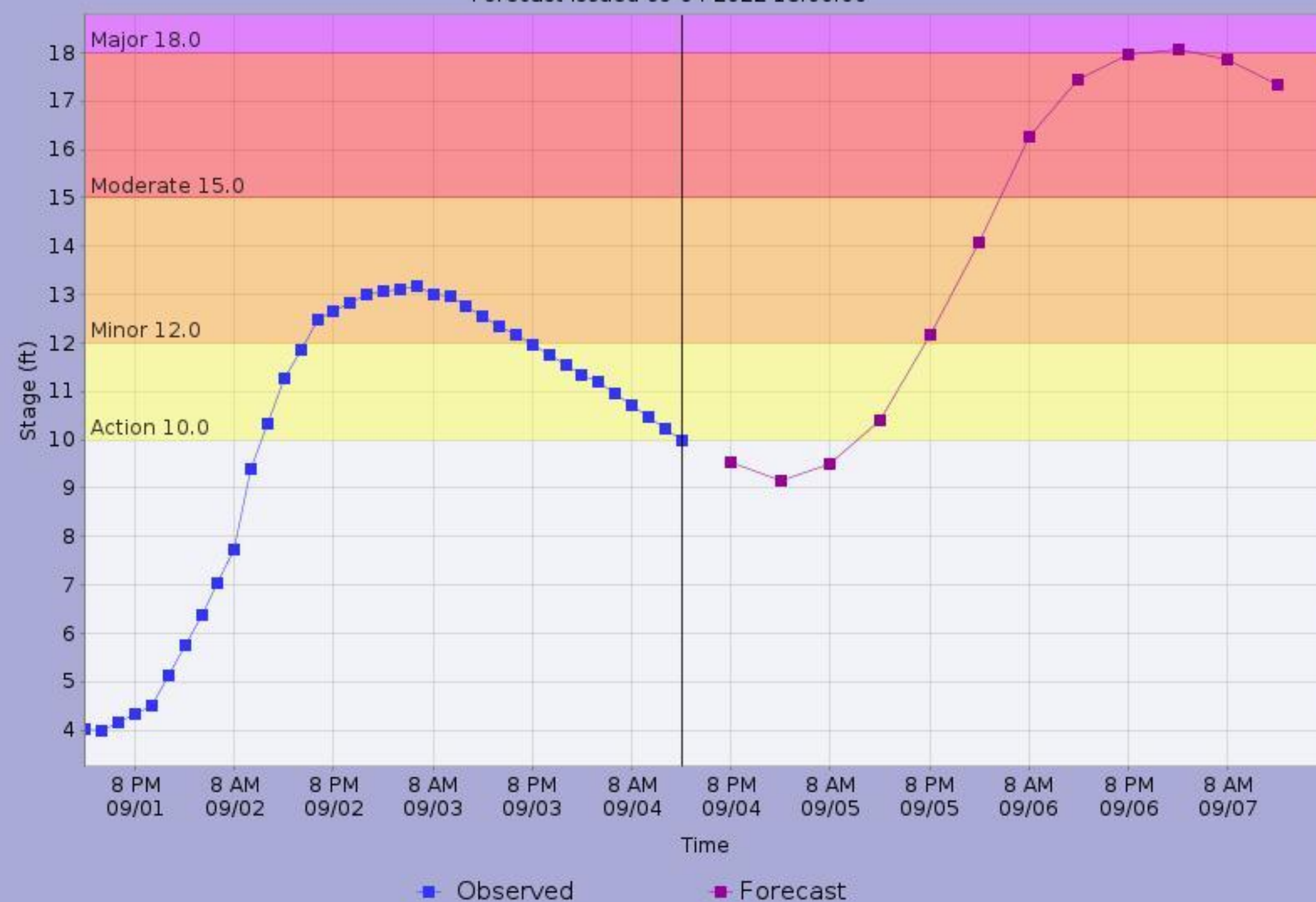


# Expected River Flooding

Hurricane Thompson

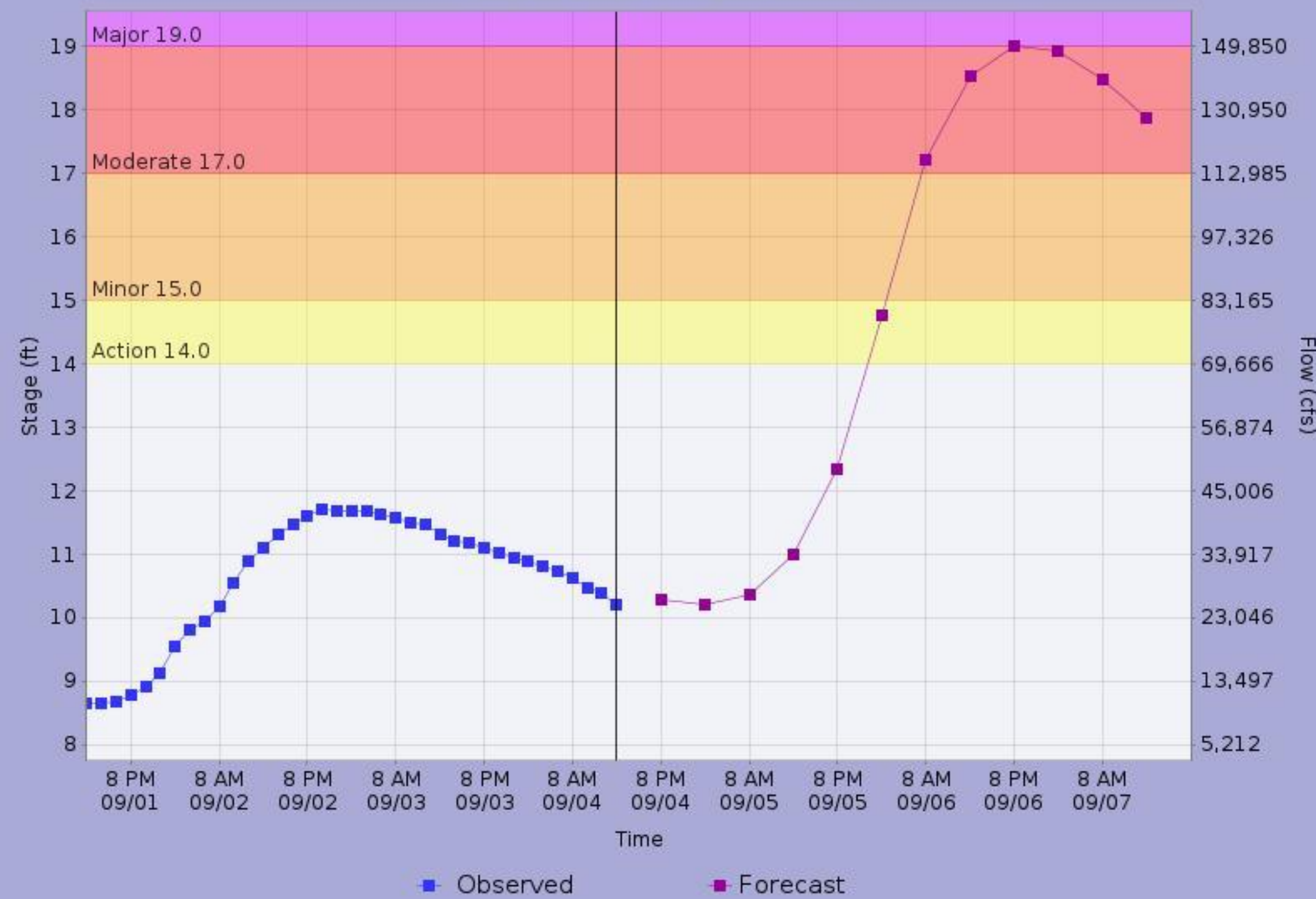
**Farmington River at Simsbury, CT (SIMC3)**

Forecast Issued 09-04-2022 18:00:00



**Connecticut River at Thompsonville, CT (TMVC3)**

Forecast Issued 09-04-2022 18:00:00



- The Farmington River at Simsbury, CT expected to crest near major flood on Tuesday.
- Connecticut River at Thompsonville, CT expected to crest near major flood on Tuesday.

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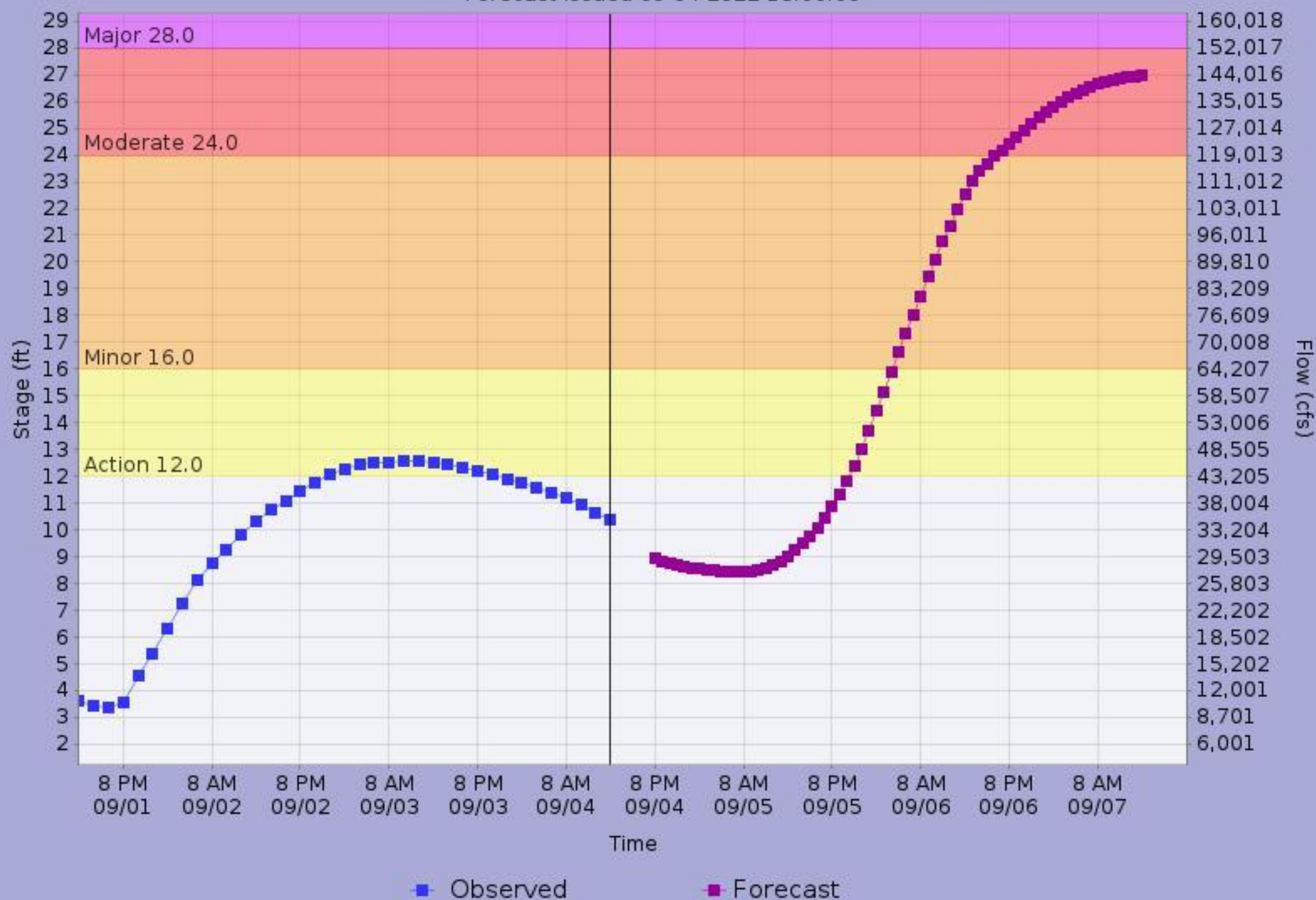


# Expected River Flooding

Hurricane Thompson

## Connecticut River at Hartford, CT (HFDC3)

Forecast Issued 09-04-2022 18:00:00



- The Connecticut River at Hartford is expected to rise above flood stage by early Monday morning.
- The River is expected to crest into solid moderate flooding levels late Monday into Tuesday. Just below major flood levels.

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# Key Take-Aways

## Hurricane Thompson

Confidence is **HIGH** that the event will occur

Confidence is **HIGH** regarding impacts



Destructive winds resulting in significant property damage and/or destruction along with widespread power outages and tree damage. Prolonged power outages will last several weeks.



Major to life threatening storm surge inundation flooding along the south coast early Mon morning.



Severe flash flooding and major river flooding, especially across western CT/MA where it may be catastrophic.



A few tornadoes possible anywhere in southern New England.



Life threatening marine conditions with hurricane force winds and extremely high seas.

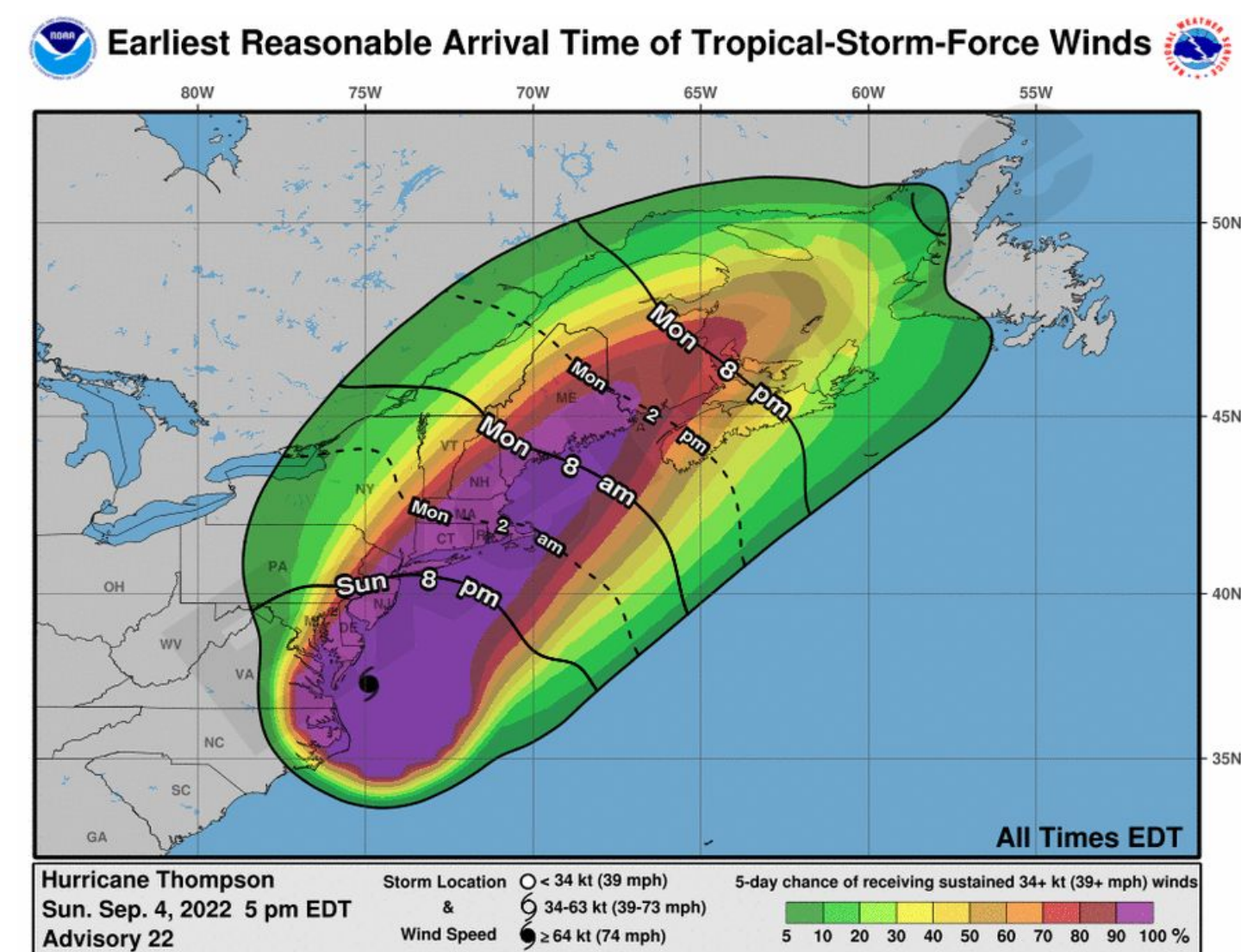
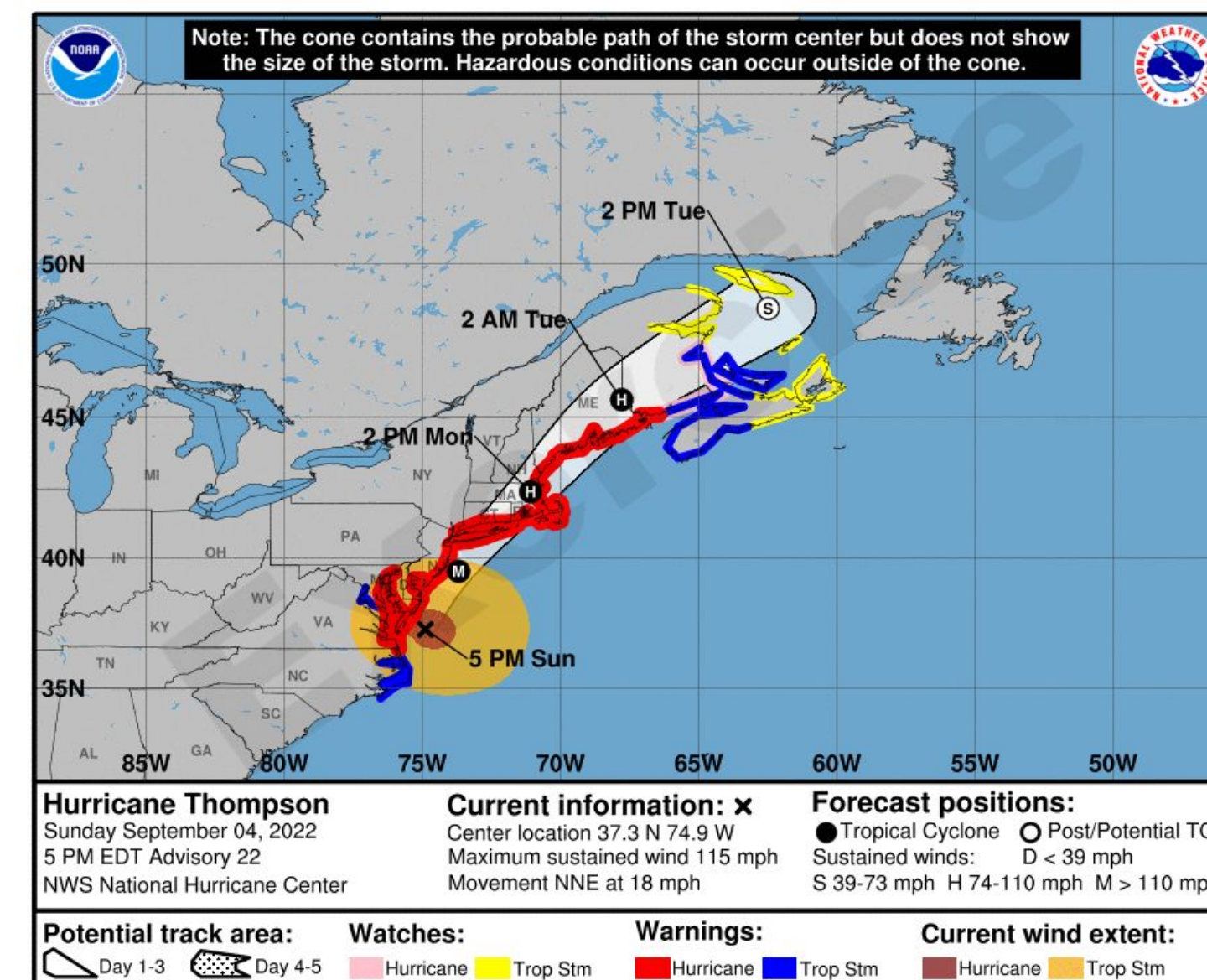




# Key Messages

## Hurricane Thompson

1. Thompson is expected to be a very dangerous major hurricane when it reaches the northeastern U.S. coast on Labor Day. Hurricane-force winds and damaging wind gusts will spread northward across portions of the Mid-Atlantic and northeastern U.S. coasts within the Hurricane Warning area tonight through Monday night. These winds will likely lead to significant damage and widespread power outages. Actions to protect life and property should be rushed to completion.
2. Life-threatening storm surge is expected near and well to the east of where Thompson makes landfall on Monday. The highest inundation values are expected between Sandy Hook, NJ and Chatham, MA, including Long Island Sound, Narragansett Bay, Buzzards Bay, and Vineyard Sound. Residents in the warning area should promptly follow any advice given by local officials.
3. Catastrophic, dangerous river and flash flooding will continue in parts of eastern North Carolina and the Virginia Tidewater, and may rapidly develop from the New York City Metro Area into the Connecticut River Valley through the Labor Day weekend, due to Thompson's heavy rainfall. Elsewhere, widespread considerable and life-threatening flooding impacts can be expected across a large portion of the East Coast.



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